

Sediment Biaccumulation Factors (BAFs)								
Chemical	Sediment Concentration	Tissue Concentration (units)	BAF (unitless)	Species/Organism			Notes	Reference
2-Methylnaphthalene	--	--	--	2.6	Oligochaetes		Laboratory	Brunson et al. (1998) (Table 2 on Page 199)
	--	--	--	6.7			Field	
	Arithmetic Mean of BAFs 4.65			--			--	
	0.5	< 0.3	ug/g	0.60	Yellow perch		Fillet concentration for location Snk-CJ	
Antimony	0.7	< 0.2	ug/g	0.29	Smallmouth bass		Fillet concentration for location Snk-BR	Clark and Maret, 1998 (Pages 31 and 33)
	0.5	< 0.2	ug/g	0.40	Smallmouth bass		Fillet concentration for location Snk-CJ	
	2	< 0.2	ug/g	0.10	Sculpin		Sediment concentration for location Bvtn	Bonn, 1999 (Pages 38 and 55)
	Geometric Mean of BAFs 0.29			--			--	--
	673	0.051	mg/kg (wet weight)	0.00038	Longnose gar			
Arsenic	673	0.025	ug/g	0.00019	Northern pike			Assumed 80% moisture USEPA, 2000 (Page 78)
	673	0.167	ug/g	0.0012	Golden shiner			
	673	0.036	ug/g	0.00027	Emerald shiner			
	673	0.03	ug/g	0.00022	Spottail shiner			
	673	0.0513	ug/g	0.00038	Bluntnose minnow			
	673	2.36	ug/g	0.018	Creek chub			
	673	0.132	ug/g	0.0010	White sucker			
	673	0.101	ug/g	0.00075	Banded killifish			
	673	0.128	ug/g	0.0010	Rock bass			
	673	0.342	ug/g	0.0025	Pumpkinseed			
	673	0.083	ug/g	0.00062	Largemouth bass			
	673	0.077	ug/g	0.00057	Yellow perch			
	673	0.08	ug/g	0.00059	Walleye			
	9.1	1.39	ug/g	764				
	9.78	1.14	ug/g	583				
	1.25	1.58	ug/g	6,320				
	26	2.4	ug/g	462				
	15	1.76	ug/g	587				
	18	0.66	ug/g	183				
	17	2.33	ug/g	685				
	17	2.22	ug/g	653				
	11	1.82	ug/g	827				
	Geometric Mean of BAFs 0.16			--				
Beryllium	1	< 0.3	ug/g	0.30	Yellow perch		Fillet concentration for location Snk-CJ	Clark and Maret, 1998 (Pages 31 and 33)
	2	< 0.2	ug/g	0.10	Smallmouth bass		Fillet concentration for location Snk-BR	
	1	< 0.2	ug/g	0.20	Smallmouth bass		Fillet concentration for location Snk-CJ	
	1	< 0.2	ug/g	0.20	Sculpin		Sediment concentration for Bvtn	Bonn, 1999 (Pages 38 and 56)
Geometric Mean of BAFs 0.19			--	--	--	--	--	--

Chromium (total)	58	0.6	0.010	Yellow perch		Fillet concentration for location Snk-CJ	Clark and Maret, 1998 (Pages 31 and 33)
	74	0.7	0.0095	Smallmouth bass		Fillet concentration for location Snk-BR	
	58	0.5	0.0086	Smallmouth bass		Fillet concentration for location Snk-CJ	
	76	1.9	0.025	Sculpin		Location Cedar	
	59	1.9	0.032	Sculpin		Location Dairy	
	69	1.9	0.028	Sculpin		Location FanDen	
	67	1.6	0.024	Sculpin		Location FanDen-r1	
	67	2.2	0.033	Sculpin		Location FanDen-r2	
	75	1.6	0.021			Location Fan-92	
	75	1.7	0.023			Location Fan-93	
	76	1.6	0.021			Location Fan-93-r1	
	68	1.5	0.022			Location Fan-93-r2	
	73	1.6	0.022	Sculpin and redside shiner		Location UpFan	
	74	2	0.027			Location Gales-92	
	74	2	0.027	Sculpin, cutthroat trout, and rainbow trout		Location Gales-96	
	83	1.9	0.023			Location UpRock	
	Geometric Mean of BAFs		0.021		--	--	--
Lead	107	10.5	491				Bonn, 1999 (Pages 38 and 56)
	365	5.7	78				
	138	0.8	29				
	241	0.9	19				
	375	20	267				
	508	13.6	134	Fathead minnow			
	297	11.9	200				
	377	19.5	259				
	283	15.1	267				
	286	9.3	163				
Silver	Arithmetic Mean of BAFs		191		--	10	USEPA, 2000 (Page 478)
	Arithmetic Mean of BAFs		1.96	Pseudocrenilabrus philander		264	
	Weighted Mean of BAFs		8.8		--	--	
		Arithmetic Mean of BAFs		Cyprinus carpio			Based on microcosm study exposure to ¹¹⁰ Ag ₂ CN
							Ratte, 1999 (Table 3 - Page 93)

Notes:

Concentrations based on whole body concentrations and dry weight unless noted.

The full reporting limit was used for tissue concentrations where analytes were otherwise not detected.

BAF = Bioaccumulation factor

mg/g = Milligram per gram

mg/kg = Milligram per kilogram

ug/g = Microgram per gram

References:

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